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SUPPLEMENT TO REPORT NO.

50X1-HUM

THIS IS UNEVALUATED INFORMATION

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1. During 1938-1939 the Hungarian Royal Air Force made a survey to determine all areas such as grass-strips, pastures, etc, which could be used in case of need as auxiliary or emergency airfields or landing strips. This planning was due to the scarcity of antiaircraft defense facilities and was done mainly to create hideouts for aircraft in case of a threatening or actual war. It was also intended to use these auxiliary fields as operational bases in case the necessity arose. One of the qualifications in this survey stipulated that the emergency fields must be near railroads or highways, or have proper transportation possibilities. Another qualification was that they be situated around the permanent air bases within a radius of 20-25 km in order that an emergency transfer of aircraft could be accomplished within 5-10 minutes of an alert. The official term for these emergency fields was bypass airfield (Atmeneti repuloter).

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2. When the Red Army invaded Hungary in 1944, several of these bypass fields were used as operational bases for fighter-bomber units, for example, Kunmadaras and Varpalota. According to plan, these bypass fields had purposely not been equipped with barracks or other facilities visible from the air. When these fields were opened, the personnel were already located in nearby civilian housing. The guards and crew members on duty were the only ones actually located at the fields and lived in well camouflaged tents which were always located among dense woods or brush. In the Great Hungarian Plains (Nagyalfold) and also in western Hungary, the uncultivated land consists of acacia. The bypass fields usually were surrounded by such acacia-woods which provided excellent camouflage possibilities for aircraft parkplaces, storage facilities, etc. In some cases a kind of primitive umbrella made of poles and straw was also used to improve the natural camouflage. These umbrellas placed at the tail and wingtip of parked aircraft among natural trees successfully camouflaged the aircraft so that they could not be spotted from above a two thousand-foot altitude. For the sake of security checks, aerial photographs were taken of such camouflaged aircraft from 18 50X1-HUM thousand feet, and they could hardly be identified.

4. Glider and sport aviation in Hungary was of official interest to the HRAF. The pre-military air training in Hungary was based mainly on gliding and sport-aviation. Especially in reference to the gliding. There were many fields of fair construction which were not very well known, which were used by the sport-enthusiasts. Detailed information about them is given in paragraphs below. The HRAF must still be very much interested in the pre-military air training.

Alex Karsay, is one of the top gliding pilots now in Hungary and as of 1951, holds the actual altitude record in gliding. Due to the terrain in 50X1-HUM Hungary, only in few places was gliding possible from natural slopes. Most of the gliding clubs in the country used tow-practice. The tow-method depended on the particular airfield conditions, or winch-tow, or aircraft-tow. The improvement of the aircraft-tow gliding methods is presently evidenced by the fact that special tow-aircraft are now being built in Hungary. This aircraft 50X1-HUM for the pre-military air training program 50X1-HUM (Horthy Miklos Repulo Alap), is being produced by assembly line, probably by the aircraft factory Aero Ever in Esztergom 50X1-HUM This aircraft design was set up according to specially set conditions, and could tow two gliding planes at once.

5. The storage of avgas, before WW II, was minor; then during WW II, due to the conditions created by aerial warfare, special measures were instituted, both from the standpoint of accumulation of reserves, as well as from protection against enemy air attacks. The avgas was not stored on the airfield itself, but 50X1-HUM in the near neighborhood, and split in smaller stockpiles. Such partial stock contained, according to the type aircraft on the base, two refuelings of the unit stationed on the airfield. The avgas stocks were used only when the normal avgas supply transported by tanktruck from a central avgas depot (located near a railroad or gasoline plant) was unavailable. Underground avgas depots were located on only a few of the newer bases which had been lately developed, such as Ferihegy and Budapest/Tokol. The avgas stockpiles of an airfield were located

far enough from the field and the aircraft-parking places so as not to cause damage in case of fire. These stockpiles were carefully camouflaged. It was the rule that trucks serving the stockpiles could not use the same trail to the stockpile more than twice in order to avoid the formation of an aerial-visible path. In the so-called Hill-Country (Dunantuli Dombosvidek) of western Hungary, the geographical configurations show many deep ravines. If they were situated in the neighborhood of an airfield, the avgas stockpiles were preferedly set up in these ravines. At some places like Varpalota, the stockpiles were located in caves dug into the wall of the ravine. With the exception of the mountains of volcanic origin surrounding Lake Balaton, the mountains in western Hungary are mostly of limestone formation. Therefore, in many places large natural caves are available. Such caves were used in Veszprem and in Tapolca as avgas depots and storage places for other important items. These two caves are well known and were partly developed before WW II. Other caves have been taken into consideration in later development. The HRAF officer who was in charge of this program in 1944 and who has perfect knowledge in this particular field is Captain Zoltan Zakany. He was repatriated from Pocking, Bavaria in October 1945. 50X1-HUM

[redacted]

refinery at Almasfuzito (former property of the American-Hungarian Oil Company). This refinery was built after the outbreak of WW II in order to refine the products of the oilfields of Lispe. A pipeline was laid from Lispe to Almasfuzito, and this installation was only slightly damaged during WW II. The location of the refinery was chosen on the Danube River in order to make use of water-transport.

6. The standard communication system of the Hungarian Armed Forces since WW I had been the teletype system Hughes. This teletype system had a separate network and it was extended to any unit of battalion-size, as well as to smaller so-called Separated Detachments (companies directly subordinated to regimental HQ). The HRAF later had modern Siemens teletype units attached to the same (Hughes) network. This teletype system could be switched over to the National Telegraph network. The switchboards of this network were in the headquarters of the Department of the Army and the headquarters of the Air Force. The teletype system had originally included every air base. During WW II when new airfields were opened, these were also connected to the teletype network. The auxiliary and bypass fields also had teletype facilities, except toward the end of WW II, when the communication systems, due to the invasion of the Red Army, gradually broke down. Thereafter, the communication between the single airbases and headquarters units was changed to VHF (aircraft equipment in emergency ground installation). The teletype operators were trained in separate training companies and after graduation were sent out to the single units. At every teletype station the operators' room was off limits to any unauthorized person. Unrestricted admission was authorized only to the CO and the G2.

7. Up until 1945 the navigational radio-aid system in Hungary was very poor. Radio JLS facilities had only lately been developed for the two airfields of Budaors and Ferihegy where the German BAKE system was adaptable. The other airfields used the German ZZ or Fischer instrument landing procedures in place of JLS. Both methods were based on VHF radio communication. The radio sets originally used by the HRAF were made in Hungary. Standard units were the R 12 and the R 13. Both units have been designed and built by the radio and electric corporation, Standard Electric Company in Budapest (European facility of the American Company of the same name). During WW II the radio equipment was incorporated with the standard units of the German Luftwaffe. No beacons or ranges were in use at all. For radio homing the so-called Zielfluggeraet was used. This system worked with broadcasting transmitters as directional targets. The civilian aviation, with exception of the airlines, had no radio equipment at all. The only experiment on civilian lines was set up by the Boy Scouts * Flying Corps in order to improve the gliding instruction by radio-communication, ground to air. The sets used were custom-built. The frequency of the five watt output transceiver (ground station) was 29.3 - 30.4 megacycles AM with a range of about two miles. This experiment was discontinued in 1940 after the outbreak of war with the USSR.

8. Radar-warning sets were installed only after 1940 when the war against the USSR began. The radar sets(Locator) were German-made. Both stationary, as well as moving radar stations were used. The main stationary radar stations were located at (a) Dunafoldvar, south of Budapest; (b) a smaller unit on the Plateau of Budateteny WSW of Budapest; (c) a semi-stationary unit at Celldomolk in western Hungary. Truckborne radar sets were located at important strategic points. The radar system had direct communication to the Civilian Defense headquarters located in a huge cave (partly artificial) beneath the mountain Gellerthegy in Budapest. The code for this headquarters was Sziklakozpont (Rockcenter). This modernly developed underground headquarters fell almost intact into the hands of the Red Army in January 1945. Recent information reveals the enlargement and improvement of this headquarters.

9. In 1942 the antiaircraft artillery was equipped with German-made radar gunlaying sets, in place of the formerly used Juhasz-Gamma electro-optical gunlaying devices (with electrical remote control). The reason for this change-over was that the pre-WW II designed Juhasz-Gamma sets failed in their combat applications. The 50X1-HUM cause of this failure was the fact that between the time the design was drawn, and tooling and production begun, aircraft speeds had increased considerably. [redacted] the use of Juhasz Gamma always resulted in the salvos 50X1-HUM exploding at the right altitude of the enemy aircraft, but so far behind that the burst was inaffective. [redacted] between 1945-1949, the precision-mechanics factory Gamma in Budapest has been transferred to the Soviet Union, and key personnel of this factory were deported. Toward the last phases of WW II, the radar gunlaying sets used had little effect as the batteries were worn out, so many AAA units were removed from their original installations to the field armies for antitank purposes. 50X1-HUM

10. Control-tower systems were used only at the two airports of Budapest, Budaors and Ferihegy/Vecses. The standard control unit of the HRAF was a truckborne control-room in order to take care of the ZZ and Fischer JLS landings. In these control-buses, both voice as well as CW transmitters were used, depending upon the radio equipment of the approaching aircraft. The voice communication was without exception VHF. The CW system operated on low frequency or on short wave. The JLS system used at Ferihegy/Vecses is shown in Figure 3. /Enclosure (C)/.

11. Ferihegy/Vecses (Fig 1) /Enclosure (A)/ originally had a lighting system (Fig 2) /Enclosure (B)/ This lighting system was essentially as follows:

(a) Limit-marker redlights (neon) showing the contour of the airfield. The single light units consisted of neon-lamps about three feet in length, anchored to concrete blocks in which the transformer was installed. The power-line for the lighting system was underground in special armour tubing. The interval between the single marker-lights was about 50 feet;

(b) Neon wind-direction indicator (automatically turning in direction of wind) was T-shaped.

(c) White danger-warning lights along the power-line located parallel to the highway which borders the southside of the airfield. (These warning-lights were located on the pole-tops of the power-line.

(d) There were never any runway lights or markers of any kind. In case of night-landings or takeoffs, powerful spotlights installed in stationary locations, illuminated the field in the main landing (takeoff) direction. The strength of the spotlights was 800 thousand Lumen each (four of them were considered as standard equipment). In 1944 the Hungarian Philips Electricity & Radio Company (a facility of the Dutch company Radio Philips, Eindhoven, Holland), had designed and tested (June 1944) a special runway spotlight at Ferihegy. This device was a truckborne Quartzlight reflector, operated from a Diesel-driven power-supply which was also installed on the same truck. The test results were good; however, the evacuation of Ferihegy in September 1944 discontinued this program.

12. Bekescsaba, up until 1945, had only an emergency landing-strip. As for the Budapest/Budaors airfield, when Ferihegy was constructed, it was planned to use Budaors as a factory-test airfield for the aircraft division of MAVAG (Magyar Allami Vas Acel es Gepgyar or Hungarian State Steel Boxcar and Machine Works). In 1940 the MAVAG took up the licensed production of the Italian-made aircraft, FALCO (originally the US design, Curtiss-Wright Hawk), and since the factory was located within residential districts, there was no other testing place nearer than Budaors. Beginning in 1941, factory-hangars, office buildings, and shops were installed on the NW edge of the airfield. A gunnery range was also installed in order to test the machine guns of the planes. An underground avgas depot was also planned; however, due to events, it could not be realized during WW II.

13. Budapest/Tokol is the airfield of the former Messerschmitt factory. It is located in about the middle of the 80 km long Csepel Island, and south of the main broadcast transmitter of Hungary Radio Budapest I (Lakihegy). The airfield is shown on pre-1945 maps as Horthyliget (Horthy-Park). This airfield was built in conjunction with the factory Duna-Gyar (Danube-division) in 1942 as a facility of the Messerschmitt Corporation. The layout of both the factory as well as the airfield was planned with major considerations for camouflage in regard to aerial warfare. The airfield, having concrete runways, is located centrally in the factory area. The factory buildings are quite far from the airfield, and are well camouflaged in small woods. The individual buildings are connected with each other and the airfield by concrete taxiways. For protection of the factory crew, two concrete shelter towers were erected in the factory area, each with a capacity of five thousand persons. The roof of these shelters is of special construction. It consists of three layers, a three-foot thick mid-layer of rubber between two reinforced concrete layers of about the same thickness. These shelter roofs withstood direct hits of the heaviest aerial bombs on 4 Apr 44. This factory produced from assembly lines the Me 210 twin engine fighter-bomber for the HRAF.

14. [redacted] the WW II damages sustained by Ferihegy/Vecses airfield from Allied bombings were repaired after 1946. The damage by this bombing was about 60% effective. The affected areas from this bomb damage to Ferihegy/Vecses airfield are shown in Figure 4 /Enclosure (D)/. The large terminal (hotel) located on the western end of the airfield, as originally built, had four stories including the street floor. Figure 1 (Numbers 9-14) /Enclosure (A)/ shows the planned extensions as of 1945 of the military installations. Information, which I received in 1949, indicates that these planned hangars and buildings were completed. 50X1-HUM

15. The Allied bombing mentioned above and others later on did not seriously damage the factory as a whole because of its scattered location. In the summer of 1944, an order was given to transfer the factory to an underground location in Kobanya; however, due to the rapid advance of the Red Army, only a couple of the departments could be transferred. The Soviets then captured the factory almost undamaged by a surprise attack. The equipment transferred to Kobanya was also captured later on by the Soviets. The factory machinery, when capture was obviously near, was sabotaged; vital parts of each machine were removed and taken away, with the aim that in case of recapture, the factory could be placed in production again within the shortest time.

16. This type of sabotage which was SOP for factories threatened by enemy capture was carried out by special units of the HRAF and the Army. The commanding officer of the sabotage-unit of the HRAF was Lt Col Alex Loczy. He left Hungary with the withdrawing forces in 1945; however, he repatriated in January 1946, and after being screened in Hungary, he continued to serve the HRAF. [redacted] he was still on active duty at that time. 50X1-HUM

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17. In 1943 it was planned to enlarge and improve Debrecen airfield because it was no longer sufficient for the increased activities of the HRAF. However, this plan was suspended due to the events of WW II. The architect general who was in charge of this planning also left Hungary in 1945, and took up residence in western Germany.

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18. Kunmadaras airfield was originally the gunnery-target-practice field, Hortobagy. Until 1945 there were only provisional installations. However, the terrain and other geographical conditions are favorable for airfield purposes. The soil, due to its rich soda content, is unfertile and hard, so that wide areas are usable for runways or grass-strips without special construction. The strategic importance is due to the fact that it lies beyond the main rivers in central Hungary.

19. 50X1-HUM The airfield of Miskolcz is the only available and useful spot near Miskolcz which is utilizable. Seregelyes airfield originally was a bypass-airfield. In 1943 improvements were begun on Szekesfehervar airfield. This included the enlargement of the airfield as the length of the original field was insufficient for takeoffs of modern aircraft (for example, Me 109). New living quarters and office buildings were also erected; however, this improvement program was still unfinished when the Red Army occupied the field in 1944. Szekesfehervar, which was one of the first military air bases in Hungary, has always been especially important because the main technical center of the HRAF is located there. This technical center included:

(a) Aircraft Repair Unit #1 consisting of:
  (1) a completely equipped engineering department with all types of workshops for building prototypes, etc;
  (2) laboratories for materials testing;
  (3) storage warehouses for material stocks;
  (4) ordnance department capable of solving any armament problem of the HRAF. (This department developed the engine-driven high-speed machine gun, Gebauer, used by the HRAF);
  (5) an open-air gunnery-range.

(b) A parachute-factory. The Hungarian-designed parachute, type HEHS, was produced there by assembly line. The commanding officer of this section who designed the parachute was engineer, Major Akos Hehs. This factory 50X1-HUM made all the parachutes used by the HRAF, the paratroops of the Hungarian Army, and also exported a great quantity

The crew of the factory during 1944 comprised about 500 persons. The original HEHS parachute was conventional. However, in 1940 a new development was begun, in order to create a barometric-controlled automatic parachute. This program was not completed by 1945. Major Hehs repatriated from Germany in 1946.

20. Szombathely airfield originally consisted of two airfields called A and B. The airfield B was originally the target-practice field of the base, and had no stationary installations. Later, during WW II, this field was improved and taken over for basic training purposes. At this time, temporary barracks were built. The 50X1-HUM airfield at 47° 17' N - 16° 38' E is the airfield A. The field B is located a few miles north of field A.

large masses of civilian inhabitants have been moved (deported) from Szombathely to central Hungary to make room for the headquarters of the Red Army which moved to Szombathely from its former location in Austria. The strategic importance of this airbase is that it is the nearest one to the important oilfields of Lispe (former property of the American-Hungarian Oil Company which is now operated by the Soviets).

21. Tapolcza airfield consists of two fields called A and B. The field B was usually used as a target-practice field but also as a regular field when the field A was either overcrowded or could not be used because of muddiness. Field B was the home base of the reconnaissance-units of the HRAF and was also used in conjunction with Aircraft Repair Unit #6. The understructure of field B was peat-soil, and its hardness always depended on the level of the nearby Lake Balaton. In 1942-1943 a soil stabilization program was attempted in order to improve the condition of the airfield. In addition to this program, an enlargement of airfield A was also projected. However, due to the events of WW II, these programs were not accomplished until 1945. A large barrack compound has also been erected, [redacted] on field B. There is a large natural cave, well-known throughout Hungary, beneath the downtown district of Tapolcza itself. The original main entrance to this cave was in the cellar of a downtown building. Later on, additional artificial entrances were dug. The cave consists of an intricate tunnel system, and also has an underground lake. During the second phase of WW II this cave was used partly as an air-raid shelter for the population. Throughout most of the cave, however, the Tapolcza airbase utilized the tunnel system as an avgas storage and ammunition dump. The roof or ceiling of the cave consists of about 45-48 feet of solid bedrock, and is therefore bombproof. 50X1-HUM

22. Varpalota airfield was originally established in the early 1920's as a target-practice field for bombers. It is located north of the eastern limit of the town of Varpalota and borders the Hungarian Army camp, Inota. The airfield is situated on a plateau about 700 feet above Adriatic sea-level and in the center of a small oak woods. The northern side of the airfield is bordered by a deep ravine. The field is trapezoidal in shape. The target-marker, a concrete pillbox surrounded by a concrete apron about 50 feet in diameter had been installed in the center of the trapezoid. The field had good grass-strips and overall length and width was approximately 1.2 km and one km, respectively. At the southern edge of the field were two wooden barracks, one for an orderly room and one for living quarters. A good farm road, which passes Varpalota and cuts through the firing range of Camp Inota, connects the field to the main highway. Another connecting road leads through Camp Inota. [redacted] Prior to WW II, this airfield was used only occasionally, and had no permanent ground personnel. The field, when not in use, has been guarded by infantry units stationed at Camp Inota. In general, the entire area, consisting of the two mentioned military installations plus additional area toward the north, has been included in one huge military reservation. 50X1-HUM

23. During WW II, the Varpalota airfield was opened on a steadily increasing basis for training. Later when the Soviet Army invaded Hungary (August 1944), the airbases' personnel and material were withdrawn beyond the Danube-line. The field by that time had become the operational base of a fighter-bomber squadron. The squadron was equipped with Me 210 aircraft. When in December 1944 the Soviets occupied Szekesfehervar, about 20 km away from this field, it was abandoned. During the time the Me 210 squadron occupied the place, it was necessary to improve the field in order to have greater runway-length for the Me 210. This was done by extending the eastern edge of the field about 400 feet and then leveling it. The concrete pillbox target in the middle of the field was demolished, but the concrete apron surrounding it was left intact. In order to obtain proper cover for ground personnel in case of enemy air raids or strafing action, caverns were drilled in the walls of ravines around the field. These caverns which were dug with modern mining tools, were reinforced with wooden supports. Avgas depots and ammunition dumps were located in additional caverns artificially created in the same manner. The geological composition of the terrain is solid rock; therefore, the caverns probably still exist.

24. During WW II, a bypass field was constructed not far from Varpalota airfield on the Baglyasteto (Owlspeak), a plateau about 1,500 feet above Adriatic sea-level. At the same time that the Me 210 squadron moved in at Varpalota airfield, an Me 109 squadron was also stationed at the Baglyasteto field. These two airbases then formed the tactical air defense for the explosive factory of Fuzfo and the synthetic gasoline plant, Peti Nitrogen. The living quarters of these two squadrons were located in the new coal-miner settlement at the intersection of the highway and the farmroad of the airfield on the east side of Varpalota.

25. ERD, originally the airfield of the Aero Club of the Polytechnical University, later became the airfield of the pre-military training organization (Horthy Miklos Nemzeti Repulo Alap). It was located SE of the town Erd and bordered on the main levee of the Danube River. The shape of the field is trapezoidal, and is about 1.5 km long and 1.2 km wide. The field which was originally a sheep pasture, is fairly grassy. Three small barracks and one medium hangar had been built at the entrance of the field (SW corner). The connecting road from the field to the highway was a good gravel farmroad. The activity on this field up until 1945 consisted of basic training and soaring (gliding) by tow-aircraft.

26. OCSA field is located just across and on the opposite shore of the Danube from ERD airfield. Originally it was a gliding field, but during the second world war the HRAF took it over for purposes of transport-glider training. The air-strip seemed to be good hard ground, and dimensions of the field are approximately 1 km x 1.4 km.

27. Esztergom/Kenyermezo was originally the factory-airfield of the civilian-soaring aircraft factory Aero Ever. Later it became the airfield of the pre-military training program. It is located south of Esztergom near the Hungarian Army Training Camp, Kenyermezo.

28. The airfield of Gyor was the field for the factory, Gyori Waggon Es Gepgyar RT (Boxcar and Machine Factory of Gyor Inc). This factory, following the outbreak of WW II, expanded to include an aircraft division. This division operated in conjunction with the Messerschmitt Corporation and produced an assembly-line, Me 109, type aircraft. Later production included the Focke Wulf - WEIHE, advanced trainer. Gyor airfield was located at the southeast corner of the factory area. It had two concrete runways, one N - S and the other NW - SE (See Figure 5) [Enclosure (E)]. The N - S runway was perpendicular to the Danube River and ended about a half mile from the river bank. The airstrips of this field were camouflaged by painting, which simulated pasture. In order to improve the camouflage of the field, dummy (removable) buildings were also placed on the airfield. This camouflage was almost perfect, with the exception that when the concrete became wet, or in very hot weather, it was quite visible even from a distance due to the refraction of light. The dimensions of the runways were about 1.5 km in length and 60 m in width. A packed-gravel taxiway was built around the airfield. The airstrips were damaged by bombing in 1944-1945, but not beyond repair. At the northern end of the main runway near the factory installations, a special gunnery range was erected. This range included a concrete pillbox, and served the automatic weapons of the Me 109. The aircraft were tied down in a fixed position facing the range and the weapons were adjusted as to aim. This gunnery range withstood the most severe bombing without considerable damage. This particular airfield had a communications tower which was installed in one of the office buildings (see Fig 5 [Enclosure (E)]. The Airfield had direct VHF and low frequency communication with the headquarters of the HRAF and was also connected to the teletype network. Considering the importance of this entire installation, the antiaircraft artillery protection was outstanding. Several (about six) 80 mm Bofors batteries were located around the factory area in solid concrete installations. Since the fall of 1943 the airfield had its own truck-borne radar. From recently received information, it is believed that the factory as well as the airfield with all its facilities, is again in service.

29. Kobanya is the name of one of the city districts of Budapest. For centuries a large cave-system, which before WW II was used partly as a beer-aging cellar by one of the breweries in Kobanya, has been of vital importance in times of war. The origin of these caverns is artificial. Access to the caves is just beyond the factory installations of the Kobanyai Sorfozo RT brewery. The ceilings of these caves average 100 - 120 feet in thickness and consist of solid limestone bedrock. During the second phase of the WW II, a program was instigated by the Hungarian Government which provided for placing the most vital industries around Budapest underground. The vulnerability of these industries was obvious and they were located prominently within residential districts. The preliminary work on this cave-development started in early 1943. Gradually the industries were moved to the underground location. The underground rooms including workrooms, emergency living quarters for the workmen, and office rooms, were equipped with ventilation air-conditioning and all conveniencies. The cave-system had a good highway connection and also a good railroad connection with the nearby railroad switchyard, Kobanya. The advance of the Red Army in 1944 made impossible the complete development of this project. During the late summer of 1944 when the Soviet Army began threatening the capitol of Hungary, those factories already installed in the caves were again transferred to safety in western Hungary or moved to Germany. Later, when the Red Army surprisingly appeared before the gates of Budapest, this cave-system was captured by the Reds almost intact.

30. Beneath the Archbishop's residence in Veszprem (Varhegy, Castle Hill) is an old natural cave consisting of several (three or four) underground stories. The upper story of the cavern served as an air-raid shelter to the population. The rest of the cavern was used for avgas and ammunition storage. In 1944 when the government evacuated Budapest, the state treasure, sovereign seals, crests, emblems, etc, and secret governmental files were kept in this cave. The cave-system has entrances at the hill top through the palace of the Archbishop and also at the bottom of the hill through gates.

31. Other cave-systems in Hungary used as emergency storages during WW II are as follows:

(a) In Budapest the dropstone cave, Palvolgy, around which are seven other larger and smaller natural aragonite and dropstone caves. In 1944 these caves were improvisedly developed to keep the files of several government departments. The cave, Palvolgy, is the largest of these and has been scientifically developed continuously. The very extent of this cave was not yet known in 1945. The total explored length of the cave in mid-1944 was about 22 km. 50X1-HUM

[redacted] these caves are now undergoing systematic development. The access to these caves is very good; they are on the highway which leads to the Harmashatarhegy (Three-Border-Peak) and are still within city limits (about two km from the main street of Buda). Because of the dominant location of Harmashatarhegy above the capitol, the main antiaircraft artillery defending Budapest during WW II were located there, and the cave-system was used as an ammunition dump serving these AAA batteries.

(b) Artificial caves, casemates of ancient fortresses, exist in the cities of Nagykanizsa and Eger. The casemates of Nagykanizsa are of smaller extension. Those of the Castle of Eger (which is a military camp) are six stories deep and very extensive. In 1942, as a result of close study of historical documents, the escape tunnel of this fortress was discovered; it leads toward the mountains 38 km beyond Eger to the Castle, Szarvasko. The casemate system has many entrances and was also severed by the railroad. This fact affected the installation of ammunition dumps in the casemate system.

(c) In south Budapest, beneath Gellerthegy (Mount Sct Gerard) is a natural dolomite cave. This cave was developed as the headquarters of Civilian Defense before WW II and was called Sziklakozpont.

(d) Also beneath the Fortress Hill of Buda, is an intricate casemate system of Turkish origin (XIII - XV century). This cave system prior to and during WW II served as underground locations of the government and a hospital (Sziklakorhaz). The entrances to this system are located in the cellars of the City Hall of Buda, in the cellars of private and governmental buildings, and four are located in the street-tunnel crossing beneath the hill (across the Ianchid or Chain Bridge).

32. South of the great Hungarian Army firing range in Budateteny is located a very important underground installation (Fig 6) /Enclosure (F)/. Originally, it was an artillery-ammunition dump built during the time of the Austro-Hungarian Monarchy. It was extended and improved during WW I. During the latter phase of WW II, this underground location became the file-storage depot of the Institute of Military Technique (M.KIR.Honved HADITECHNIKAI INTEZET). This institute, which was a special department of the Royal Hungarian Armed Forces, was established first in 1921 as Technikai Kiserleti Intezet (Institute of Technical Research), a civilian institution. Later it was officially declared a unit of the Armed Forces. The files of this institute contained the documents, original drawings, and blueprints of all research, new developments, and equipment of the Hungarian Armed Forces. In August 1944 these files were still there. The present whereabouts of the files is unknown [redacted] in all probability, they were evacuated to the west when the Red Army approached Budapest. A good road and also a railroad spur which led into the cavern through a tunnel, connected the cave-system to the main railway line and the Budapest-Siofok highway (Fig 6) /Enclosure (F)/. The cavern contained its own power plant and sewage pumping plant. The entire cavern was excellently ventilated and had a thermostat-controlled air conditioning system for heating. The storage rooms were located in the chamber system as shown in Figure 6. /Enclosure (F)/. These storage rooms were oval shaped tunnels. The single storage rooms had a floor area of about 20 x 8 meters each. Access to the storage rooms was through steel-grill and armour-plate doors. The composition of the hill under which the cavern was located, consisted of solid dolomite bedrock; the approximate thickness of the rock-ceiling is 200 feet. The military guard and their offices were located above ground in a small brick building just to the right of the entrance gate.

50X1-HUM

50X1-HUM

[redacted]

-end-

ENCLOSURE (A): Sketch of Ferihegy/Vecses Airfield Area
(B): Sketch of Lighting System of Ferihegy/Vecses Airfield
(C): Sketch of Control-tower Communications System at Ferihegy/Vecses Airfield
(D): Sketch of Ferihegy Base and Vicinity
(E): Sketch of Gyor Factory and Airfield
(F): Sketch of Budateteny Underground Installation

SKETCH OF FERIHEGY/VECSES AIRFIELD AREA

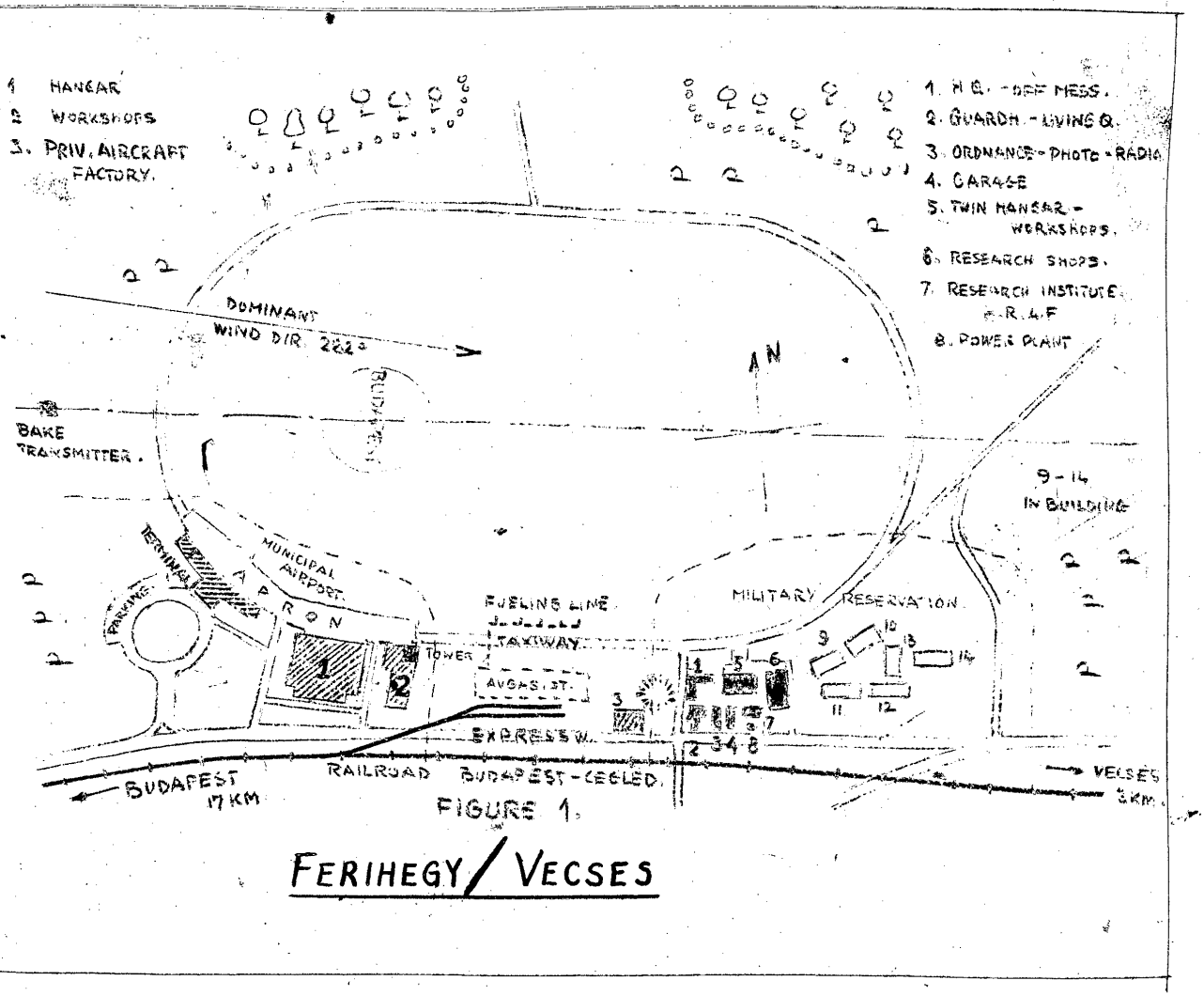

FIGURE 1.

FERIHEGY / VECSES

SKETCH OF LIGHTING SYSTEM OF FERIHEGY/VECSES AIRFIELD

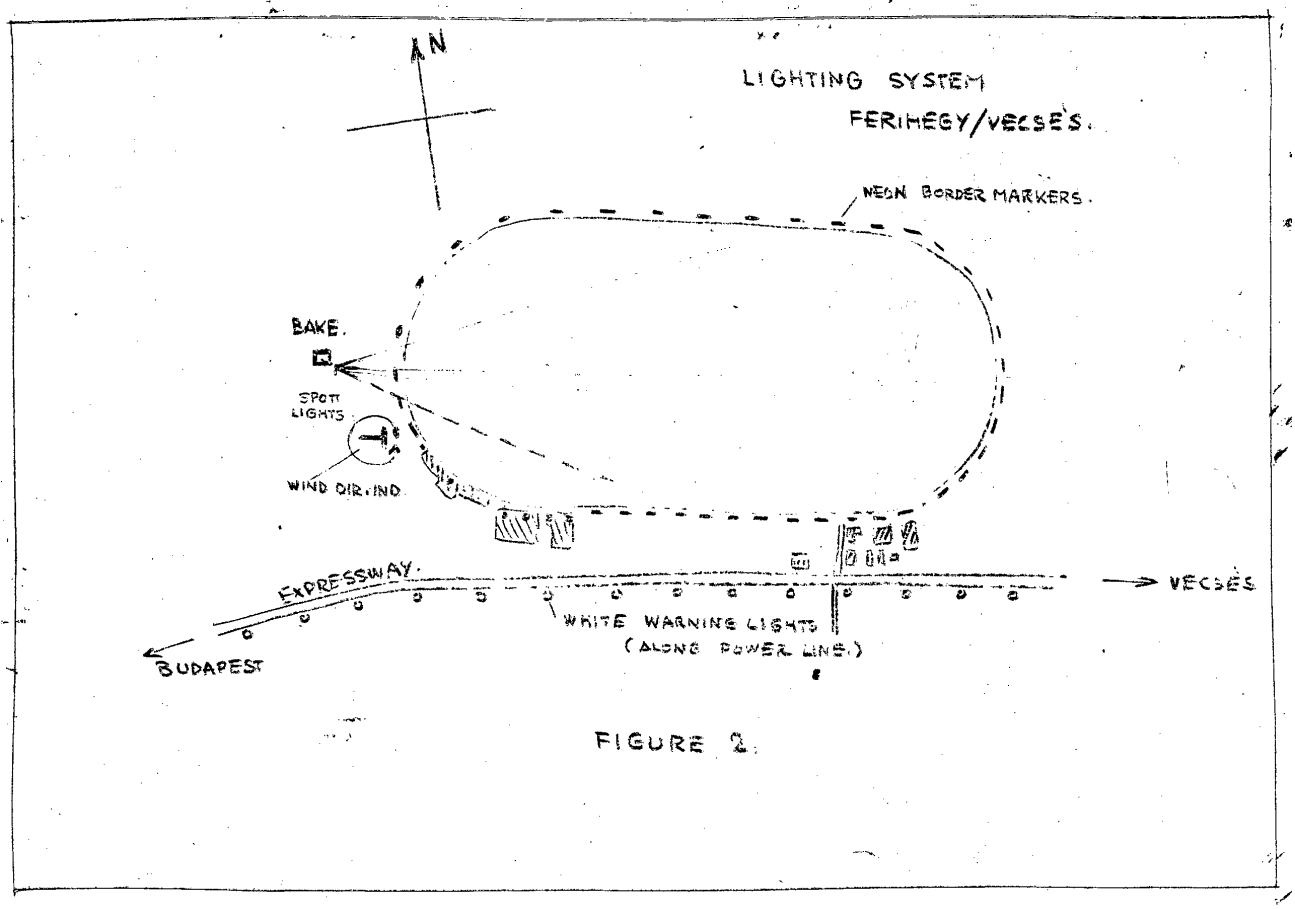

FIGURE 2.

SKETCH OF CONTROL-TOWER COMMUNICATIONS SYSTEM AT FERIHEGY/VECSES AIRFIELD

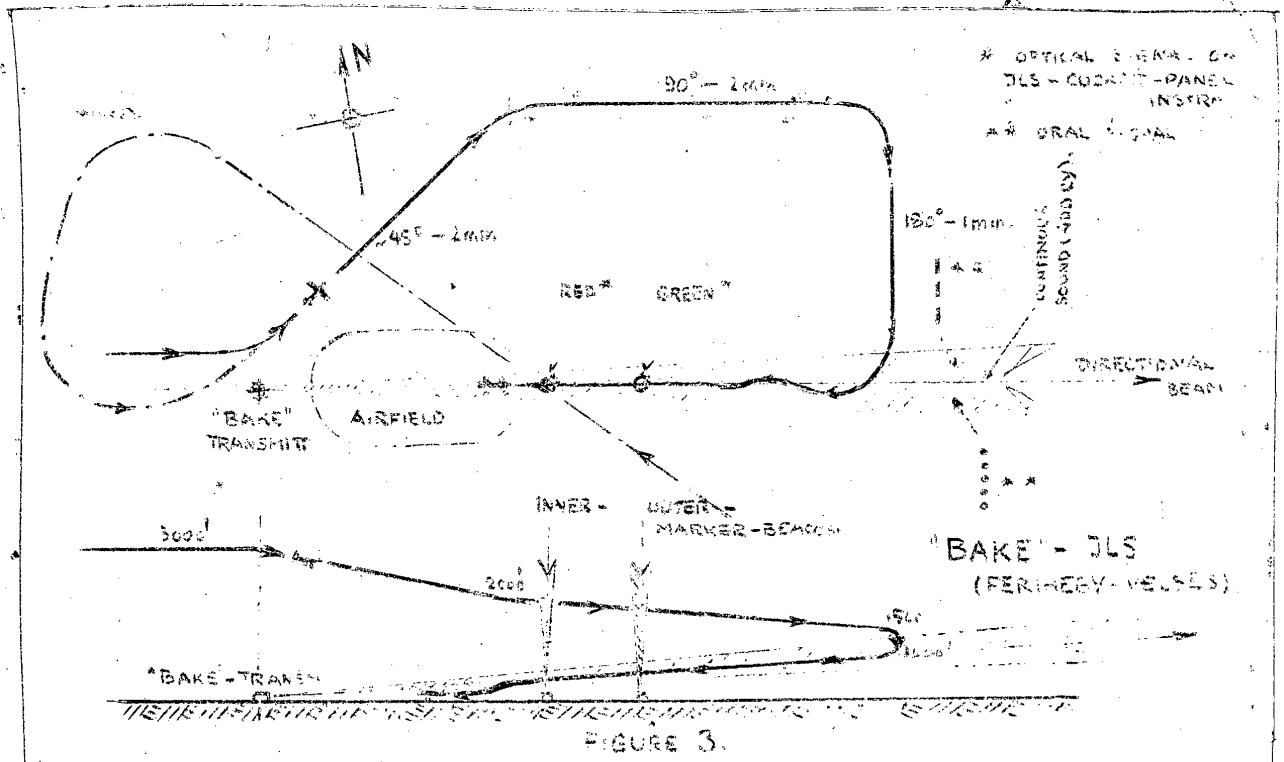

FIGURE 3.

ENCLOSURE (D) CONFIDENTIAL/US OFFICIALS ONLY/SECURITY INFORMATION

SKETCH OF FERIHEGY BASE AND VICINITY

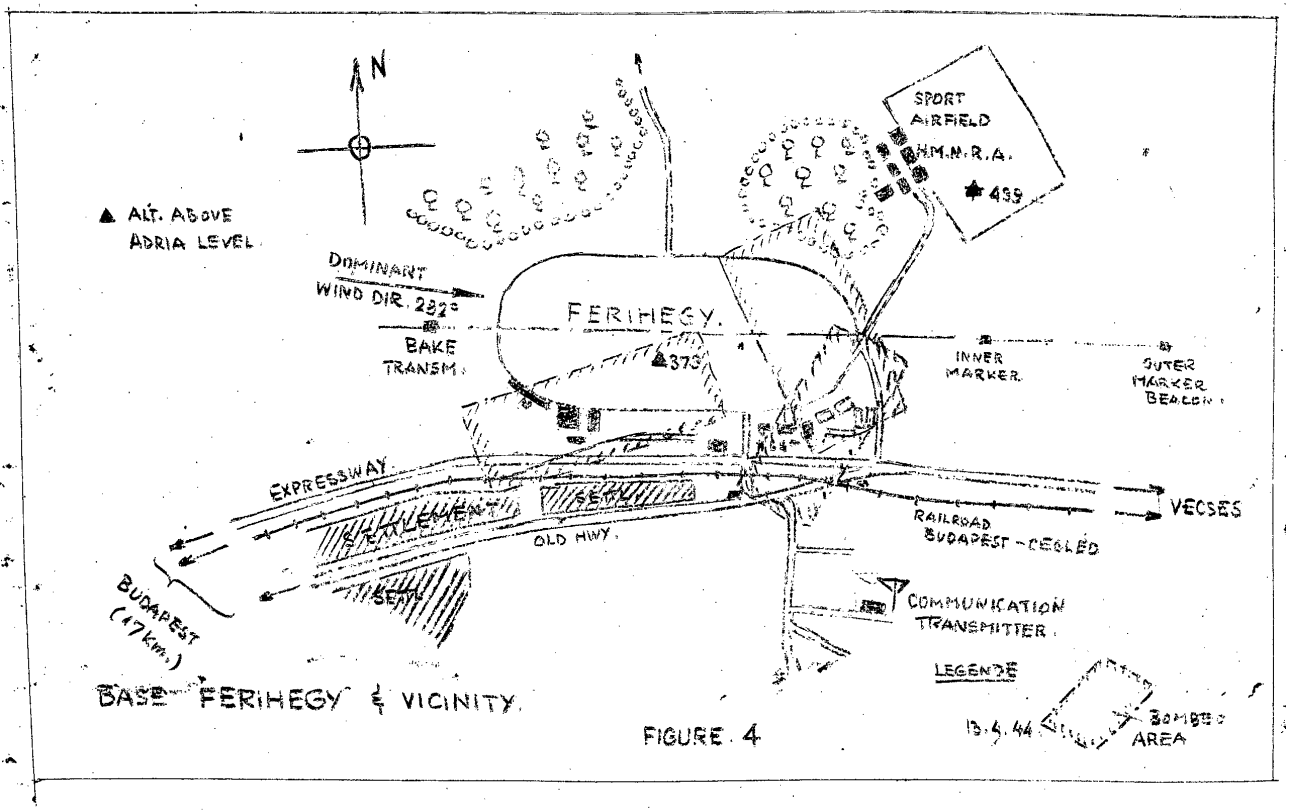

FIGURE 4

CONFIDENTIAL/US OFFICIALS ONLY/SECURITY INFORMATION

SKETCH OF GYOR FACTORY AND AIRFIELD

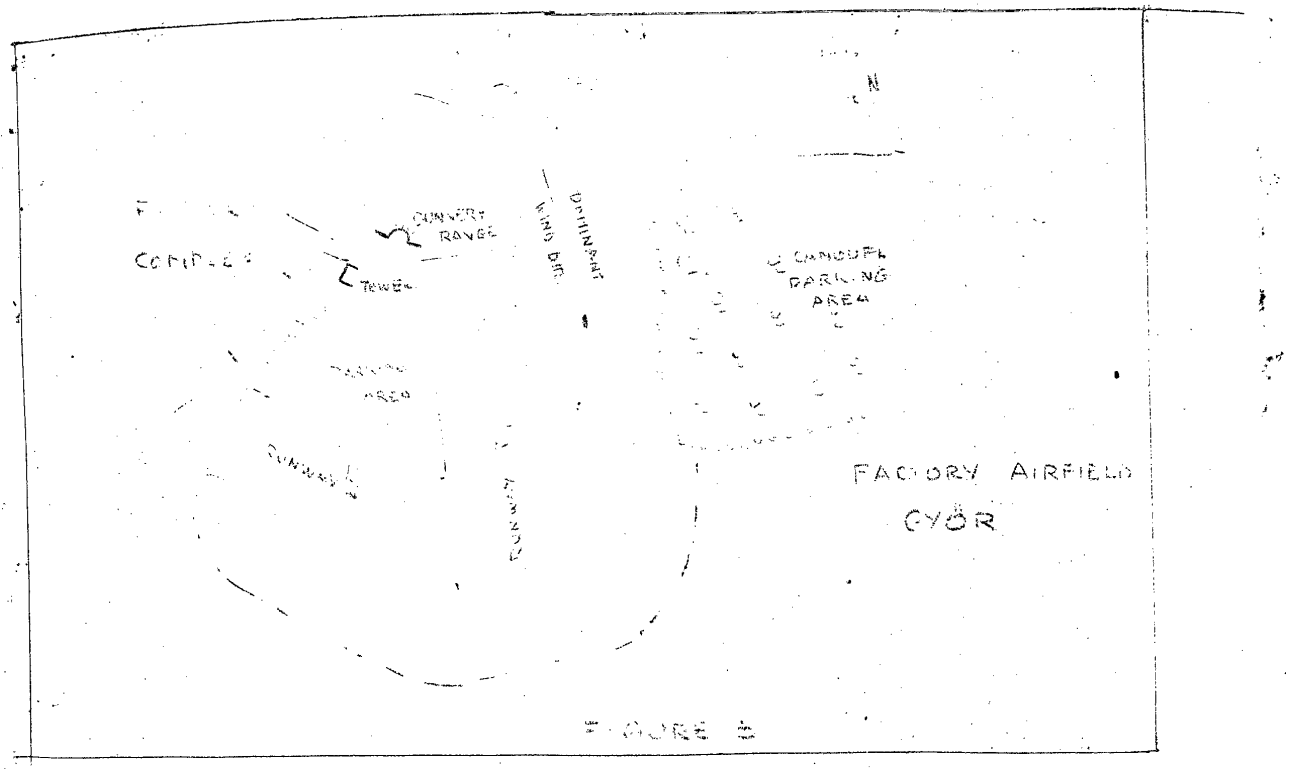

FIGURE 8

ENCLOSURE (F) CONFIDENTIAL/US OFFICIALS ONLY/SECURITY INFORMATION

SKETCH OF BUDATETENY UNDERGROUND INSTALLATION

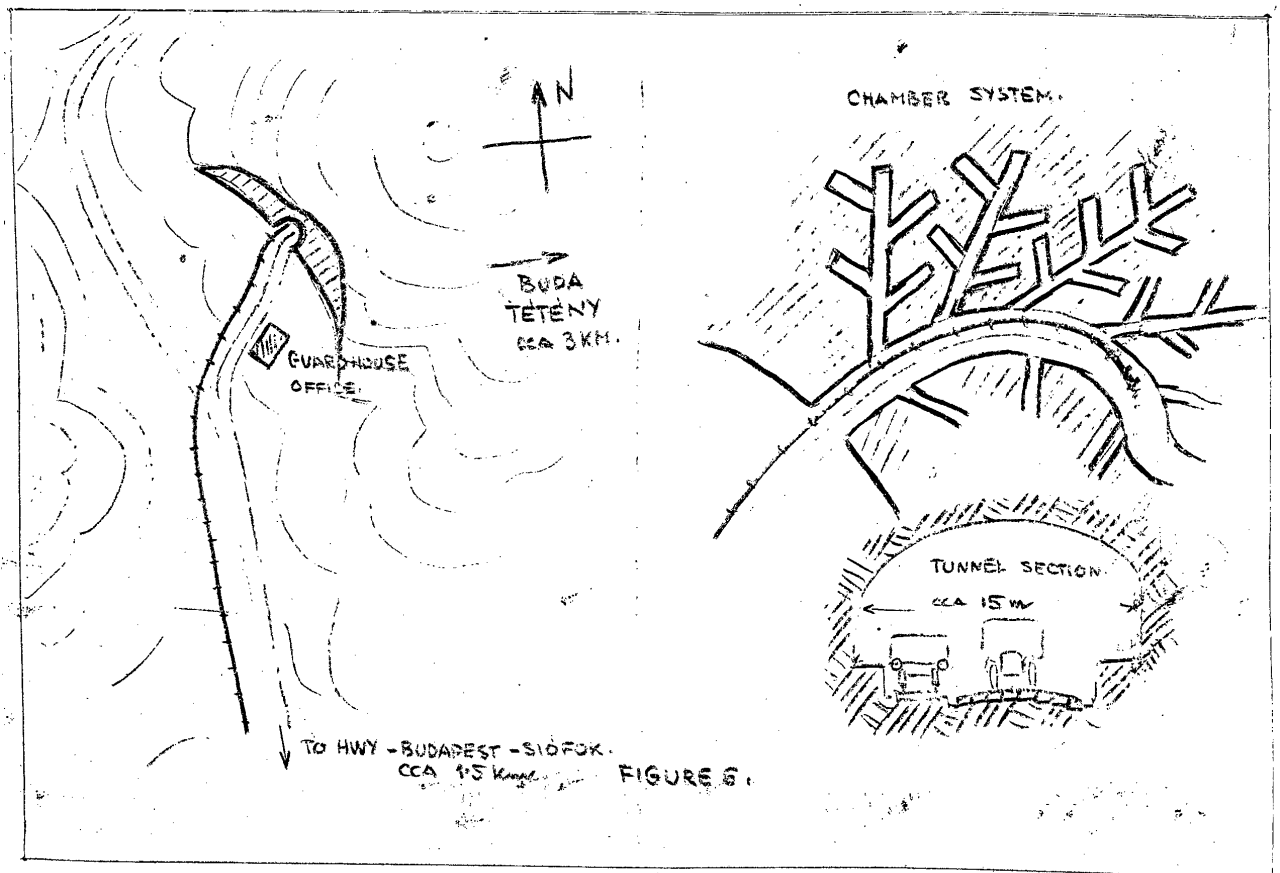

FIGURE 6.

HUNGARIAN VETERAN

Supplement of the Hadak Utján

March 1952

Aims and means of the Hungarian Resistance

(A message from Hungary)

(Following is a detailed summary of an article in the March issue of our Hungarian monthly „Hadak Utján".)

It is exceedingly important, in considering the preparation of any action from a military point of view, to know the general mood and willpower of people organized for resistance in Hungary. The pure military relations, requirements as well as the present possibilities of building up an organized resistance have become quite clear to our Collegial Society, being angaged of, for many years. It became a nonsense, to build up any centralized resistance movement with its center inside Hungary, because all preparations have become known by the Secret Police (ÁVH) and Military Counter Intelligence Service (Katpol) after a proper infiltration of the Center as well as of its territorial groups. A Center directing a resistance movement inside Hungary, always meant a most serious danger to people taking part. The only possible way of organizing the resistance with a relative security and progressive success was this: setting up various small special groups isolated from each other, directed from outside the Iron Curtain. This required the decision of the Center of our Collegial Society that the special service must be stationed near the borders of Hungary as a requirement of our people organized in Hungary.

Thus we are able-and therefore it is our duty to mediate the general feelings and views of our people in Hungary being identical with the meaning of the majority of the Hungarian population.

*

The Hungarian people, living under the strain and struggle of Soviet terror, their lives endangered from day to day, have developed an amazing instinct of caution and defense. They well understand that various groups of Hungarian emigrants want to serve the ideal of liberation, but their opinion is that cooperation is possible only with experts who have had experience in similar activities. It is for this very reason that they did not contact „political underground members", but turned to the group of emigrants organised in a military sense (MHBK).

Instructions for the tasks of the national underground resistance are expected from abroad; — this, however, with the **exclusive aid of military experts.**

The organized resistance (includes principally 90% of the Hungarian population) considers its main duty to be military- rather than party-organization and, to carry out military actions. During the past seven years, Hungarians have been most seriously disillusioned in all party activities. Due to the terror, constant persecution and the uncertainty of livelihood, everything has been basically simplified. Communism has annihilated all parties from „Fashists" to „disloyal Marxists"; social classes have been destroyed, and Party structure has proved insufficient to face the power of Communists.

Resistance is therefore based on no more than the patriotism of Hungarians within various social classes and members of either former or recent political parties. All political and social defferences have been erased. Religious differences are completely unknown. Catholics and Protestants are, side-by-side, preparing a religious movement, the practice of which should prove sufficiently strong to supress even Bolshevist dialectics.

Concerning the future function of civilian emigration, people are waiting them as experts, but not as political leaders. Following liberation, the right of leader-

ship is entirely cured" this fact is emphasized by all members of the organized resistance.

The message from home calls upon our service to begin, without delay, steps for military preparations.

Those at home hope that this may be in unity with military emigrations of other Iron Curtain countries; for all international problems are non-existent, to day giving way to the mutual aim and will of each nation: to get rid of Soviet Tyranny!

Development of the Hungarian People's Army

(Defense measures)

The March-issue of our monthly „Hadak Utján" (printed in Hungarian language) continues its article-series on the Hungarian People's Army based on reports produced by our resistance groups in Hungary. In this article, it is pointed out that the development of the Hungarian armed forces reveals recently the development of its defensive character. A similar tendency has been observed of all other satellite-armies as well. This **„satellite defense belt"** has to secure the aggressive military preparations of the Soviet Union.

The following is a detailed account of the part concerning the development of the various branches of anti-aircraft defense service.

1. **Development of the Fighter Forces of the Hungarian Air Force.**

It is this branch where the first improvements were effected to modernize the Hungarian Communist armed forces equipping the Hungarian Air Force with the Soviet-made jet-aircraft, type MIG-15, — practically at the same time this type of airplane appeared on the Korean battle-front.

The Headquarters of the Fighter Air Division No 1 was set up at Kunmadaras airfield (behind the Tisza-river) being still under construction. — This is one of the largest and most modern airfield in Hungary. More airfields are subordinate to the above Fighter Air Division and there are several air units equipped already with MIG-15 jet-aircraft which is to replace the obsolete Jak-9 type of airplane. The tendency to build op Air Divisions of the Fighter Air Regiments gives proof of the integration and development of the Hungarian Air Force, whereas this particular military service-branch of the Hungarian armed forces had formerly been rather neglected by the Soviet Union.

The Hungarian fighter Air Division No 1 is equally a so-called „task-force", which may be used by the Soviet Union whenever and wherever it would be required, i. e., where „proper military instructions may be given to the Hungarian Air Force now under development" as it was stated by the high ranked Soviet liaison-officer to the C. in C. of the Hungarian Air Force.

Fighter Regiments not subordinate to any Air Division have been incorporated — with their still less modern equipment-within the National Anti-aircraft Defense System.

2. **Anti-aircraft Artillery.**

As long as the Air Force units are supplied by the youngest air-personnel (the number of 18—19 year-olds is extremely high), the development of the Hungarian Anti-aircraft Artillery must be carried out by training also veterans of the World War II. with the Soviet arms. The first such group was already called up this year throughout the country in February. — Many of these reservists were sent to the Headquarters of the Budapest Anti-aircraft Artillery Division which has already installed a new Light Anti-aircraft Artillery Division, whith its Headquarters in Komárom, on November 1, 1951 by redoubling („twinning") the units of he Anti-aircraft Artillery Division Budapest.

These anti-aircraft Divisions are equipped with the anti-aircraft guns of the World War II of Soviet, and partly Hungarian and German origin. Their maximum range does not exceed 8.5 kilometers. These anti-aircraft Divisions are subordinate to the General Headquarters af the Hungarian Anti-aircraft Artillery, and are also considered as „task-forces" like the Fighter Air Division mentioned under para 1. A strong Hungarian anti-aircraft unit was thus expelled in the Summer of 1951 to the Korean battle-front and posted along the Mandsurian border under the pretext of „manoeuvres". This „task-force" includes an anti-aircraft unit from Debrecen, the belated winter-equipment of which was transported from the Military Clothing Magazin in Daróczy street, Budapest as late as January 1952.

Apart from the above described units, there are also some smaller anti-aircraft units subordinate to the Army, and on the other hand to the National Anti-aircraft Defense Headquarters (Budapest) with completely obsolete arms and optical equipment.

3. **Anti-aircraft Defense and Early Warning System** was also developed at great speed with the assistance of all Comunist mass-organizations (such as SZHSZ, MHK, etc.).

The enlarging of telephone and telegraph centers by way of installing new centers, which has been carried out by the Ministry of Postal Affairs on Soviet instructions aims the expansion and modernization of the anti-aircraft observation and signaling service. The expansion of the underground cable system toward the South deserves particular attention. The enlarging of postal signal equipment equally serves tactical purposes. The main center herefore is the underground Headquarters at Pusztavács- which is adequate to house the entire staff of an Army Headquarters.

The national anti-aircraft center built in the hill Kis-Gellérthegy in Budapest is again in operation since 1949. The radar station established near Nagytétény plays an important role in the functioning of the radar system built up around Budapest.

The construction of air-raid shelters safe against A bombs too is being carried out in the environments of the Capital.

Federation of Ex-Combatant Association of Central and Eastern Europe established by Poles, Hungarians and Czechs in London

The Temporary Executive Committee (T. E. C.) of the Federation of Ex-Combatant Association of Central and Eastern Europe, at their meeting on March 3 rd 1952 put forward and accepted the following resolutions — namely:

Item I. The six years of war, fought to establish World Freedom, Democracy, Justice and Peace, ended without attaining a single one of those aims. All Central and Eastern European people are now in the clutches of a regime unsurpassed in its cruelty and savagery. All Ex-Servicemen of these countries, who fought alongside the victorious powers, should, in duty bound, continue the fight for the liberation of their people as well as that of all the people of Central and Eastern Europe.

Item II. Not only has no just peace been attained but the World is living in conditions of neither Peace nor declared War. As the first and basic condition of a peace is friendship between the people; the Ex-Servicemen who fought alongside the victorious powers deem it necessary to extend the hand of friendship towards all Central and Eastern European people from behind the Iron Curtain. In the face of incipient dangers there is the pressing need for unity of all those wishing to preserve human dignity, freedom for people and individuals, democracy, and common justice. They therefore seek peace for all subjugated people, — friends and allies alike, united in a common cause.

Item III. Ex-Servicemen who have seen and experienced the cruelties of War are the last ones who want to start a new War. They do not wish to discuss here wether or not, the present conditions of undeclared war — with hundreds of the Servicemen of the West falling daily as victims of that undeclared war, merits the name peace or is worth keeping. Hard facts cannot be denied or removed by pretending not to see them and it is for the free people of the World to decide wether or not they wish to see the facts truely as they are; but the Ex-Servicemen consider it their duty towards their people, and to humanity to remind the free world that, during the war, they were given, — allies and enemies alike, promises of Freedom and Justice — which were never honoured. In the name of their Collegues who died on the Battlefields hoping to help create a new and better world, they remind the free people of these solemn promises freely given — and so ask help for their people.

Item IV. Unless there be freedom and justice in Central and Eastern Europe — the world is doomed, — slavery, and injustice will spread like a plague and so engulf the whole world. It is a question of honour as well of self-interest for the free world not to abandon the subjugated people of Central and Eastern Europe.

Chairman of the T. E. C.
T. Korycki
Polish Ex-Combatant's Association

Vice-Chairman of the T. E. C.
M. Borosnyay
Comradeship of the Hungarian Warriors (MHBK)

General-Secretary of the T. E. C.
R. Kopecky
Czechoslovak Legion in Exile

Address: 18-20, Queens Gate Terrace, London S. W. 7.

Lajos Kossuth — military Organiser

II.

Details concerning the Hungarian War of Independence are but vague in the minds of the Western world. Yet the Hungarian nation may state without exaggeration that the organisation of this battle for liberty was the greatest industrial and military achievement of its day. Due to Austrian domination, Hungarian industry had been neglected, and Hungary was considered almost exclusively an agrarian nation in 1848/49, and the production of even one single weapon met with the greatest of difficulties.

When Kossuth Lajos, Leader of the Hungarian War of Independence, requested 200,000 soldiers and 12 million Forints to defend the invaded nation, his demand met with unanimous acceptance by the members of the National Assembly. Yet secretly everyone considered the equipment of these 200,000 soldiers impossible.

The superhuman problem was solved by the military genius of Lajos Kossuth, President of the Warfare Council. The Hungarian nation needed, above all else, its independent currency. To form a basis for a new Hungarian currency churches willingly handed over all valuables, while wealthy citizens submitted all gold and silver which they possessed. Peasants cut off the silver buttons from their coats which were fashionable at the time. Within days and almost within a few hours, the values gathered to cover Hungarian money totalled over one million Forints. Lajos Kossuth promptly began printing the money, and thus was in a position to remunerate the „Népfelkelők" and „nemzetőrök" (similar to national guards) with a stable currency.

Lajos Kossuth sent representatives to Great Britain and Turkey to purchase arms and ammunition. The „nemzetőrök" had at first entered the battle armed only with sickles. Suddenly a Transsylvanian appeared who, although he had never before procuded arms, decided to manufacture cannons. His attempts were so successful that within six weeks, Áron Gábor's arms factory had outgrown the largest factory in this line, the Krupp Factory at Essen. Hundreds of women and girls were producing ammunition. Only a few weeks later Arthur Görgey, Comm. in Chief of the War of Independence sent Lajos Kossuth the following note: „send no more cannons, I already have sufficient to fatten pigs with them".

Arthur Görgey, former soldier in the Austrian Imperial army, had entered the War of Independence as a young Captain. He did not believe that an army could be organised with the assistance of civilians. When the troops of Windischgrätz entered Buda, Hungary's Capital, on New Year's Eve of 1848, Kossuth and the government fled to Debrecen, while Görgey aimed at Northern Hungary with his sadly diminished troops, there to train the „nemzetőrök" as fully-fledged soldiers, in a brilliantly-led winter campaign. In later decades, the tacties of this campaign were taught in nearly all military academies of the West. After three months of interminable retreat, Görgey's troops broke through Upper Hungary — after an enormous detour — and at Tiszafüred they met the new troops trained by Lajos Kossuth in three short months.

Arthur Görgey, heading this excellent group of soldiers, began his famous Spring Campaign of March-April 1848. It is during this that the young Hungarian army conquered the experienced troops of Prince Windischgrätz, the best European army of its day — a victory comparable only to Napoleon's. Komárom the famed Hungarian fortress, was liberated. Budavár, after a siege of 21 days, was occupied by Görgey's triumphant troops. Bem, the Polishborn warrior, liberated Transylvania.

Francis Joseph I visited Warsaw during this crisis, to request the assistance of the Russian Czar against the Hungarian „rebels". The Czar sent 200 000 of Russia's crack troops to the aid of Austria.

Russian troops appeared in the Danube Valley for the first time in history, introducing the flag of Czarist imperialism to the Slavonic people of the South. The Hungarian army began a desperate warfare on two fronts: against Austrian troops as well as Russians. After bloody battles, tremendous losses and energetic resistance, Arthur Görgey was finally forced to lay down his arms to the conqueror: the Russian Army.

The Hungarian nation will nevertheless continue to pride itself on this battle for liberty in which its army — never exceeding 156 000 man — conquered approximately 400,000 Austro-Russian soldiers, a conquest which lasted several months.

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